

### REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1-53 will be pending. By this amendment claims 53-55 been added.

#### § 103 Rejection of Claims 1-3, 6, 9, 11, 21, 25-27, 30, 33, 35, 45 and 49-52

In Section 3 of the Office Action, claims 1-3, 6, 9, 11, 21, 25-27, 30, 33, 35, 45 and 49-52 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower et al. (*U.S. Patent: 5,983,190*; hereinafter referred to as “Trower”) in view of Yamamoto (*U.S. Patent: 5,923,337*). This rejection is respectfully traversed below.

In the Background section of the Specification, it was stated that “there is recently provided an interactive operation support system, which is set to allow a personified assistant to appear on a display screen, permitting the user to perform input of commands to the equipment in the form of carrying out a conversation face to face with an assistant on the screen.” *Specification, page 3, lines 10-15*. “However, such a system making it possible to present the status conditions in progress related to such operations on the screen through an assistant has not been developed so far, and as a result, there is no other way other than the user having to wait for response from the system with one's eyes fixed on the screen. It is to be even supposed that if the user gives a command to the system to execute a processing requiring a response time, the user would even misunderstand that the equipment is out of order. ... Thus, it is preferable that, in order to allow the user to operate the equipment based on interaction with the assistant, an

operationally easy input of a command system produces an effect close to natural language is provided.” *Specification, page 4, lines 11-23.*

To address the above-described shortcomings of the conventional interactive operation support system, embodiments of the present invention provide improved system and method for interactive operation support for an apparatus comprising a display unit, a speech input unit, a speech output unit, and an operation control unit. For example, the structure of system claim 1, as presented herein, states that the operation control unit includes:

*“an assistant control means for generating a personified assistant and making said assistant appear on a screen of said display unit;*

*an output speech control means for determining speech required for said assistant to output said assistant's speech to the outside through said speech output unit after speech synthesis;*

*an input speech recognition means for recognizing user's voice as a speech inputted through said speech input unit;*

*an interaction management means for managing interaction between said assistant and said user according to said assistant's speech determined by said output speech control means and said user speech recognized by said input speech recognition means;*

*an ambient state generating means for enabling said personified assistant to make motions in a proper way or to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state; and*

*a command interpreting means for specifying a user's intention or specifying said inputted user command based on a content of interaction traced by said interaction management means.”*

(emphasis added)

Accordingly, in one aspect of claim 1, the operation control unit includes at least an ambient state generating means for enabling the personified assistant to make motions in a proper way or to act as if urging the user to input commands using the input speech recognition

means when the interactive operating system is placed in a wait state. See *Specification*, page 31, lines 24-28; page 36, lines 20-24; and page 40, lines 28-29.

By contrast, Trower fails to teach or suggest generating an ambient state enabling an animated personified assistant to make motions in a proper way or act as if urging the user to input speech commands when an interactive system is in a waiting state. *May 23, 2005 Office Action* (hereinafter "*Office Action*"), page 3. Yamamoto is cited for teaching such an ambient state generating means. *Office Action*, page 3 (citing Yamamoto at col. 14, line 32 to col. 15, line 3). Yet Yamamoto discloses a method and system for generating an animation sequence by an animated character in response to voice and other input. *Yamamoto, Abstract*, col. 6, lines 45-62. The voice and other input comes from a live person or performer, and the animated character interacts with an audience that usually cannot see the performer. *Yamamoto*, col. 6, lines 6 to col. 7, line 8. The performer is not virtually interacting with or speaking to the animated character; rather, based on the performer's actions the animated character is caused to move and appear to speak, in a similar manner as to how a puppet would move and speak based on a puppeteer's actions. *Yamamoto*, col. 3, lines 28-41.

Therefore, Yamamoto does not teach or suggest an ambient state generating means for enabling a personified assistant to make motions in a proper way or to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state, as claimed, to meet the invention's objective of providing an improved interactive operation support for an apparatus. Thus, it is maintained that Trower and Yamamoto, individually or in combination fail to teach or suggest all the limitations of claim 1.

Based on the foregoing discussion, it is submitted that claim 1 should be allowable over Trower and Yamamoto. Since claims 25 and 49 closely parallel, and include substantially

similar limitations as, claim 1, claims 25 and 49 should also be allowable over Trower and Yamamoto. Further, since claims 2-3, 6, 9, 11, 26-27, 30, 33, and 35, 45 and 50-52 depend from one of claims 1 and 25, claims 2-3, 6, 9, 11, 26-27, 30, 33, and 35, 45 and 50-52 should also be allowable over Trower and Yamamoto.

Accordingly, it is submitted that the Examiner's rejection of claims 1-3, 6, 9, 11, 21, 25-27, 30, 33, 35, 45 and 49-52 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43 and 46-48

In Section 4 of the Office Action, claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43 and 46-48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, and in further view of Houser et al. (*U.S. Patent: 5,774,859*; hereinafter referred to as "Houser"). This rejection is respectfully traversed below.

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48 depend from one of claims 1 and 25, claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48 should be allowable over Trower and Yamamoto.

In section 4 of the Office Action it is stated that Houser includes the following claim 4 and 28 limitation: "control means determines speech for leading a user's interaction when said command interpreting means fails to specify said user's intention or said inputted user command." *Office Action, page 6*. Yet even if Houser were to disclose this limitation of claims 4 and 28, it fails to disclose or teach the remaining limitations of claims 1 and 25 not taught by Trower and Yamamoto. Similarly, Houser is cited for teaching additional limitations present in

claims 5, 12, 13, 15, 17, 19, 22-24, 29, 36, 37, 39, 41 and 43 that are not present in claims 1 or 25. Therefore, it is maintained that Trower, Yamamoto and Houser, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43, and 46-48 should be allowable over the combination of Trower, Yamamoto and Houser.

Accordingly, it is submitted that the Examiner's rejection of claims 4, 5, 12, 13, 15, 17, 19, 22-24, 28, 29, 36, 37, 39, 41, 43 and 46-48 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 7, 8, 20, 31, 32, and 44

In Section 5 of the Office Action, claims 7, 8, 20, 31, 32, and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto and in further view of Lumelsky et al. (*U.S. Patent: 6,081,780*; hereinafter referred to as "Lumelsky"). This rejection is respectfully traversed below.

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 7, 8, 20, 31, 32, and 44 depend from one of claims 1 and 25, claims 7, 8, 20, 31, 32, and 44 should be allowable over Trower and Yamamoto.

Regarding claims 7 and 31, it was stated that Lumelsky discloses "[c]ommunication means for connecting said system to a communication medium such as an external network and/or a telephone line, and a mail exchange means for making an exchange of electronic mails via said communication medium, wherein said output speech control means determines said assistant's speech based on content of an incoming mail." *Office Action, pages 10-11*. Yet even if Lumelsky were to disclose this limitation of claims 7 and 31, it fails to disclose or teach the

remaining limitations of claims 1 and 25 not taught by Trower and Yamamoto. Similarly, Lumelsky is cited for teaching additional limitations present in claims 8, 20, 32 and 44 that are not present in claims 1 or 25. Thus, it is maintained that Trower, Yamamoto and Lumelsky, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 7, 8, 20, 31, 32, and 44 should be allowable over the combination of Trower, Yamamoto and Lumelsky.

Accordingly, it is submitted that the Examiner's rejection of claims 7, 8, 20, 31, 32, and 44 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

#### § 103 Rejection of Claims 10 and 34

In Section 6 of the Office Action, claims 10 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, and further in view of Crow et al. (*U.S. Patent: 6,262,724*; hereinafter referred to as "Crow"). This rejection is respectfully traversed below.

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 10 and 34 depend from claims 1 and 25, respectively, claims 10 and 34 should be allowable over Trower and Yamamoto.

It was stated that Crow teaches the following limitation of claims 10 and 34: "[a]ssistant control means places said personified assistant in a room scattered with various kinds of objects including a link to an information resource, and in response to an interest of said user in a recording medium including a link to a music content placed in said room, said command interpreting means interprets an inputted user command as a command for playing back said

music content.” *Office Action, page 12*. Yet even if Crow were to disclose this limitation of claims 10 and 34, it fails to disclose or teach the remaining limitations of claims 1 and 25 not taught by Trower and Yamamoto. Thus, it is maintained that Trower, Yamamoto and Crow, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 10 and 34 should be allowable over the combination of Trower, Yamamoto and Crow.

Accordingly, it is submitted that the Examiner’s rejection of claims 10 and 34 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 14, 16, 18, 38, 40 and 42

In Section 7 of the Office Action, the Examiner has rejected claims 14, 16, 18, 38, 40 and 42 under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, in further view of Houser, and yet further in view of Florin et al. (*U.S. Patent: 5,583,560*; hereinafter referred to as “Florin”). This rejection is respectfully traversed below.

Based on the foregoing discussion regarding Trower, Yamamoto and Houser and claims 1 and 25, and since claims 14, 16, 18, 38, 40, and 42 depend from one of claims 1 and 25, claims 14, 16, 18, 38, 40, and 42 should be allowable over the combination of Trower, Yamamoto and Houser.

Further, it was stated that Florin discloses a picture-in-picture window with the ability to jump to (zoom in on) the channel displayed in the window. Yet even if Florin were to disclose this limitation of claims 14, 16, 18, 38, 40, and 42, it fails to disclose or teach the remaining limitations of claims 1 and 25 not taught by Trower, Yamamoto and Houser. Thus, it is

maintained that Trower, Yamamoto, Houser, and Florin, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 14, 16, 18, 38, 40, and 42 should be allowable over the combination of Trower, Yamamoto, Houser, and Florin.

Accordingly, it is submitted that the Examiner's rejection of claims 14, 16, 18, 38, 40 and 42 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Newly-added Claims 53-55

Claims 53-55 have been added and depend from claim 1. Based on the foregoing discussing regarding claim 1, claims 53-56 should be allowable over the cited prior art references.



**CONCLUSION**

In view of the foregoing, entry of this amendment, and the allowance of this application with claims 1-55 are respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes that have been made to these claims were not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes were made simply for clarification and to round out the scope of protection to which Applicant is entitled.

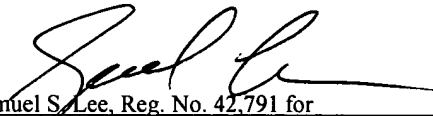
In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP

By:

  
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Samuel S. Lee, Reg. No. 42,791 for  
William S. Frommer  
Reg. No. 25,506  
(212) 588-0800